NAVAJO GENERATING STATION EXCESS EMISSIONS REPORT FIRST QUARTER, 2018



NAVAJO GENERATING STATION

P. O. BOX 850 PAGE, ARIZONA 86040

April 30, 2018

Dr. Donald Benn, Executive Director
Navajo Nation Environmental Protection Agency
P.O. Box 339
Window Rock, AZ 86515
And
Navajo Nation EPA Air Quality Control Program
Operating Permit Program
Route 112, North Bldg. #2837
PO Box 529
Fort Defiance, AZ 86504

Director, Air Division
U.S. Environmental Protection Agency, Region IX
Mail Code: AIR-5
75 Hawthorne Street
San Francisco, CA 94105

RE: Navajo Generating Station FIP – 40 CFR §49.24, Title V Permit to Operate No. NN-ROP-05-06 and PSD Permit Number AZ 08-01 Quarterly Emission Report

Dear Directors,

Enclosed is the First Quarter 2018 emissions report for Navajo Generating Station. The report contains the following information:

- Daily electrical energy generated in megawatt-hours (permit condition II.B.5.b).
- Sulfur dioxide and carbon dioxide information according to the procedures set forth at 40 CFR 60.7 and permit condition II.B.5.a;
- Identification of periods when opacity values exceeded 20 %, excluding condensed uncombined water droplets over any 6-minute period, and 40% averaged over 6 minutes, during absorber upset transition periods.

Page Two (cover letter) April 26, 2018

- Identification of periods when sulfur dioxide emissions exceeded 1.0 lb/mmBTU as a plantwide 3-hour average, and a CEMS data assessment according to the procedures set forth at 40 CFR §49.24(d)(1) of NGS FIP.
- Nitrogen Oxide and Carbon Monoxide information according to PSD Permit Number AZ 08-01A, condition IX.G.5

With respect to the opacity data presented in the report, please note that 6-minute opacity readings are not individually listed during scrubber operations because the saturated stack conditions impedes the accuracy of the readings. The report identifies the block time periods for each unit that the scrubbers were operational and the stacks were saturated, in lieu of reporting the individual 6-minute wet stack readings.

Please contact Paul Ostapuk at (928) 645-6577 if you have any questions.

Sincerely,

Kenneth J. Frazier

Plant Manager / Responsible Official

Howeth J. Fragier

Enclosures

cc: William J. Mcclellan, SRP – Manager Air Quality & Environmental Services Environmental File

CEM EXCESS EMISSION REPORT

Salt River Project Navajo Generating Station Page, Arizona

UNIT# 1, 2, 3

YEAR 2018

QUARTER FIRST

This report is in accordance with reporting requirements set forth in the NGS FIP – 40 CFR §49.24, Title V Permit to Operate, Permit No. NN-ROP 05-06, Section II.B.5 and PSD Permit Number AZ 08-01A, Condition IX.G.5.

Emission standards in this report are in accordance with the NGS FIP – 40 CFR §49.24 sections (d)(1), (d)(3), (d)(4), (e)(8), Title V Permit to Operate, NN-ROP-05-06 Section II.B.2 and PSD Permit Number AZ 08-01A Conditions IX.B.1 and IX.B.2

EXCESS EMISSIONS FOR QUARTER: None

NAVAJO GENERATING STATION CEM SUMMARY SHEET FIRST QUARTER OF 2018

	UNIT 1	UNIT 2	UNIT 3
# Hours of I.D. Fan Operation	2058.2 hrs	1988.5 hrs	2064.3 hrs
# Hours Boiler Operation	2030.9 hrs	1964.9 hrs	2035.7 hrs
Opacity Monitor Availability	99.98 %	98.20 %	99.92 %
SO2 #/mmBTU Availability	99.46 %	99.39 %	99.95 %
NOx #/mmBTU Availability	99.36 %	97.97 %	99.95 %
CO #/mmBTU Availability	99.80 %	100 %	100 %
Opacity Emission >20% (6-Min)	0.0 hrs	0.0 hrs	0.0 hrs
% Operating Time	0.00 %	0.00 %	0.00 %
Opacity Emission >40% (6-Min)	0.0 hrs	0.0 hrs	0.0 hrs
% Operating Time	0.00 %	0.00 %	0.00 %
SO2 #/mmBTU > 0.1 (365BOD)	0.0 days	0.0 days	0.0 days
% Operating Time	0.00 %	0.00 %	0.00 %
SO2 #/mmBTU >1.0 (3Hr)	0.0 days	0.0 days	0.0 days
% Operating Time	0.0 %	0.0 %	0.0 %
NOx #/mmBTU >0.24 (30D)	0.0 days	0.0 days	0.0 days
% Operating Time	0.0 %	0.0 %	0.0 %
CO #/mmBTU >0.23 (30D)	0.0 days	0.0 days	0.0 days
% Operating Time	0.0 %	0.0 %	0.0 %
CO #/mmBTU >0.15 (12M)	0.0 days	0.0 days	0.0 days
% Operating Time	0.0 %	0.0 %	0.0 %

Plant Coal, Ash and Road Sweeping Activities - Opacity Emission ≥20% (hours)

NAVAJO GENERATING STATION CEMS MONITOR LISTING

Teledyne Monitor Labs Inc. Opacity Monitor Model Lighthawk 560

Teledyne Monitor Labs Inc. Flow Monitor Ultra Flow 150

Thermo Environmental Sulfur Dioxide Monitor Model 43i

> Thermo Environmental CO₂ Monitor Model 410i

> Thermo Environmental NO_x Monitor Model 42i

Thermo Environmental CO Monitor Model 48i

UNIT 1 REPORT SUMMARY

- o Daily Electric Energy Report
- o Opacity Excess Emission and Monitoring System Performance
- o Excess Wet Opacity Report
- o Excess Dry Opacity Report
- o Opacity Downtime Report
- SO2 Excess Emission and Monitoring System Performance
- o SO2 Excess Emission Report 1.0 lb/mmBTU
- o SO2 Excess Emission Report 0.1 lb/mmBTU
- o SO2 Downtime Report
- o CO2 Downtime Report
- o NOx Excess Emission Report
- NOx Downtime Report
- o CO Excess Emission Report- 30-Day
- o CO Excess Emission Report- 12-Month
- o CO Downtime Report

40 CFR 52.145.d.5.iii Daily Electric Energy Report Gigawatt Hours

Source: Unit 1 Channel: 1 GW365

Report for 01/01/2018 thru 03/31/2018

Date	Gigawatts	Date	Gigawatts	Date	Gigawatts	
01/01/18	17.30	02/01/18	14.05	03/01/18	15.33	
01/02/18	16.90	02/02/18	14.55	03/02/18	14.72	
01/03/18	17.90	02/03/18	12.95	03/03/18	14.05	
01/04/18	17.74	02/04/18	12.16	03/04/18		
01/05/18	17.18	02/05/18	12.62	03/05/18		
01/06/18	16.16	02/06/18	12.28	03/06/18		
01/07/18	15.51	02/07/18	12.38	03/07/18		
01/08/18	16.58	02/08/18	12.73	03/08/18		
01/09/18	16.33	02/09/18	13.15	03/09/18	9.67	
01/10/18	14.82	02/10/18	wal one sap tage and one	03/10/18	9.16	
01/11/18	14.56	02/11/18		03/11/18	11.39	
01/12/18	16.81	02/12/18		03/12/18	13.08	
01/13/18	14.51	02/13/18		03/13/18	14.78	
01/14/18	14.15	02/14/18	14.80	03/14/18	14.23	
01/15/18	15.65	02/15/18	15.27	03/15/18	11.85	
01/16/18	16.75	02/16/18	17.21	03/16/18	12.22	
01/17/18		02/17/18	15.49	03/17/18	11.59	
01/18/18	15.91	02/18/18	13.02	03/18/18	12.40	
01/19/18	15.00	02/19/18	14.86	03/19/18	12.57	
01/20/18	16.25	02/20/18	15.97	03/20/18	11.87	
01/21/18	15.44	02/21/18	17.84	03/21/18	11.83	
01/22/18	17.92	02/22/18	17.78	03/22/18	11.29	
01/23/18	16.44	02/23/18	16.94	03/23/18	13.28	
01/24/18	17.54	02/24/18	16.53	03/24/18	10.13	
01/25/18	16.62	02/25/18	15.67	03/25/18	13.30	
01/26/18	15.59	02/26/18	14.77	03/26/18	13.64	
01/27/18	15.21	02/27/18	15.12	03/27/18	14.64	
01/28/18		02/28/18	15.56	03/28/18	15.13	
01/29/18				03/29/18	15.82	
01/30/18	-			03/30/18	15.83	
01/31/18				03/31/18	15.11	

Invalid Boiler Operating Day

40 CFR Part 60 CEM Quarterly Report Excess Emission and Monitoring System Performance

Reporting dates 01/01/2018 00:00 through 03/31/2018 23:59

Pollutant: Opacity / "1 Opacity" Emission Limit: 40

Company Name: SRP - Navajo, Unit 1

Address: Navajo Generating Station Page, AZ 86040

Unit Description: coal-fired cyclonic boiler power plant

Total source operating time in reporting period: 2058.2 hours

	CEMS Downtime Summary (note 1)			
to:	1. Duration of CEMS downtime in period due to:			
0.0	a. Monitoring Equipment Malfunction	0.0		
0.0	b. Non-Monitoring Equipment Malfunction	0.0		
0.0	c. Quality Assurance	0.0		
2058.2	d. Other Known Monitor Downtime Cause	0.5		
0.0	e. UnKnown Monitor Downtime Cause	0.0		
0.0	2. Total duration of CEMS downtime	0.5		
0.00%	3. CEMS downtime (%)	0.02%		
	0.0 0.0 0.0 2058.2 0.0	to: 1. Duration of CEMS downtime in period due to: a. Monitoring Equipment Malfunction b. Non-Monitoring Equipment Malfunction c. Quality Assurance d. Other Known Monitor Downtime Cause e. UnKnown Monitor Downtime Cause 7. Other Known Monitor Downtime Cause 2. Total duration of CEMS downtime		

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

Name: Walter H. Begay
Signature:
Title: Air Quality Environmental Engineer

Date: 4 Cle 18

Navajo Unit 1 Excess Wet Opacity Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040 Start: 01/01/2018 00:00 End: 03/31/2018 23:59

POLLUTANT: 1 Opacity SOURCE: Unit 1 EPISODE: Opacity Over Limit

Incident	Incider	nt Length				
Start	En	d Hours	Rea	ason	Acti	on
01/01/18 00:00 -	01/29/18 11:5	683.1	8 Wet	Scrubber	Operation	Exempt
01/31/18 03:42 -	02/11/18 04:4	265.0) Wet	Scrubber	Operation	Exempt
02/11/18 11:05 -	03/05/18 09:0	526.0) Wet	Scrubber	Operation	Exempt
03/07/18 16:37 -	03/31/18 23:5	59 583.4	Wet	Scrubber	Operation	Exempt

Total Duration: 2058.2 Hours

Navajo Unit 1 Excess Dry Opacity Report

SRP - Navajo, Unit 1 Navajo Generating Station Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Page, AZ 86040

POLLUTANT: 1 Opacity SOURCE: Unit 1 EPISODE: Opacity Over Limit

Incident Start

Incident End

Length Hours

Reason

No Excess Emissions

Total Duration 0.0 Hours

Navajo Unit 1 Opacity Downtime Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040 Start: 01/01/2018 00:00 End: 03/31/2018 23:59

POLLUTANT: 1 Opacity SOURCE: Unit 1 EPISODE: Opacity Analyzer Downtime

Incident Start				ident Ind		ngth ins.	Reas	on		
01/16/18 10	0:36	-	01/16/18	10:41	06	Preven	tative	Maintenance	Activities	
02/20/18 14	4:51	-	02/20/18	15:05	12	Preven	tative	Maintenance	Activities	
03/22/18 13	3:36	-	03/22/18	13:41	06	Preven	tative	Maintenance	Activities	
03/28/18 09	9:30	-	03/28/18	09:35	06	Preven	tative	Maintenance	Activities	

TOTAL DURATION = 0.5 Hours

40 CFR Part 60 CEM Quarterly Report Excess Emission and Monitoring System Performance

Reporting dates 01/01/2018 00:00 through 03/31/2018 23:59

Pollutant: SO2 1b/MMBtu (365 Boiler Operating Day rolling average) Emission Limit: 0.1

Company Name: SRP - Navajo, Unit 1

Address: Navajo Generating Station Page, AZ 86040

Unit Description: coal-fired cyclonic boiler power plant

Total source operating time in reporting period: 2030.9 hours

Emission Data Summary(note 1)		CEMS Downtime Summary(note 1)		
1. Duration of excess emissions in period due	to:	1. Duration of CEMS downtime in period due to:		
a. Start Up/Shut Down	0.0	a. Monitoring Equipment Malfunction	0.0	
b. Control Equipment Failure	0.0	b. Non-Monitoring Equipment Malfunction	2.0	
c. Process Problems	0.0	c. Quality Assurance	4.0	
d. Exempt (Wet Stack - Scrubber Operation)	0.0	d. Other Known Monitor Downtime Cause	5.0	
e. UnKnown Excess Emissions Cause	0.0	e. UnKnown Monitor Downtime Cause	0.0	
2. Total duration of excess emission	0.0	2. Total duration of CEMS downtime	11.0	
3. Excess emission duration (%)	0.00%	3. CEMS downtime (%)	0.54%	

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

Name: Walter H. Begay
Signature:

Title: Air Quality Environmental Engineer

Date: 4 26 18

Navajo Unit 1 SO2 Excess Emission Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00

End: 03/31/2018 23:59

Emission Limit: 1.0 lb/MMBtu, 3 hr. plant wide average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 1 SO2 Excess Emission Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00

End: 03/31/2018 23:59

Emission Limit: 0.1 lb/MMBtu, 365 BOD rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 1 SO2 Downtime Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00 End: 03/31/2018 23:59

POLLUTANT: 1 SO2 ppm SOURCE: Unit 1 EPISODE: SO2 Analyzer Downtime

Incident	Incident End	Length Hrs.	Reason
01/31/18 09:00	- 01/31/18 10:59	2	Non-Monitor Maintenance
02/01/18 15:00	02/01/18 17:59	3	Quality Assurance Activities
02/11/18 15:00	02/11/18 15:59	1	Other Known Monitor Downtime Cause
02/11/18 19:00	- 02/11/18 22:59	4	Other Known Monitor Downtime Cause
03/27/18 10:00	03/27/18 10:59	1	Quality Assurance Activity

Navajo Unit 1 CO2 Downtime Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040

Start: 1/01/2018 00:00 End: 3/31/2018 23:59

POLLUTANT: 1 CO2 cor SOURCE: Unit 1 EPISODE: CO2 Analyzer Downtime

Incident	Incident	Length	
Start	End	Hrs.	Reason
01/31/18 09:00	- 01/31/18 10:59	2	Non-Monitor Maintenance - Dilution
02/01/18 15:00	- 02/01/18 17:59	3	Quality Assurance Activity
02/11/18 15:00	- 02/11/18 15:59	1	Other Known Monitor Downtime Cause
02/11/18 19:00	- 02/11/18 22:59	4	Other Known Monitor Downtime Cause
02/27/18 09:00	- 02/27/18 09:59	1	Quality Assurance Activity
02/27/18 10:00	- 02/27/18 10:59	1	Monitor in Calibration (non-daily)
03/27/18 10:00	- 03/27/18 10:59	1	Quality Assurance Activity

Navajo Unit 1 NOx Excess Emission Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00

End: 03/31/2018 23:59

Emission Limit: 0.24 lb/MMBtu, 30 Day rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 1 NOx Downtime Report

SRP - Navajo, Unit 1 Navajo Generating Station

Page, AZ 86040

Start: 01/01/2018 00:00 End: 03/31/2018 23:59

POLLUTANT: 1 NOx cor SOURCE: Unit 1 EPISODE: NOx Analyzer Downtime

Incident Start	Incident End	Length Hrs.	Reason
	- 01/31/18 10:59	2	Non-Monitor Maintenance
	- 02/01/18 17:59	3	Quality Assurance Activities
02/11/18 15:00	- 02/11/18 15:59	1	Other Known Monitor Downtime Cause
02/11/18 19:00	- 02/11/18 22:59	4	Other Known Monitor Downtime Cause
02/27/18 09:00	- 02/27/18 10:59	2	Quality Assurance Activities
03/27/18 10:00	- 03/27/18 10:59	1	Quality Assurance Activities

Navajo Unit 1 CO Excess Emission Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Emission Limit: 0.23 lb/MMBtu, 30 Day rolling average

Date and Time Period

Magnitude

Reason

No Excess Emissions

Navajo Unit 1 CO Excess Emission Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040 Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Emission Limit: 0.15 lb/MMBtu, 12-Month rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 1 CO Downtime Report

SRP - Navajo, Unit 1 Navajo Generating Station Page, AZ 86040 Start: 01/01/2018 00:00 End: 03/31/2018 23:59

POLLUTANT: 1 CO cor SOURCE: Unit 1 EPISODE: CO Analyzer Downtime

Incident	Incident	Length	
Start	End	Hrs.	Reason
01/31/18 09:00 -	01/31/18 09:59	1	Non-Monitor Maintenance - Dilution
02/01/18 15:00 -	02/01/18 17:59	3	Quality Assurance Activity

UNIT 2 REPORT SUMMARY

- o Daily Electric Energy Report
- o Opacity Excess Emission and Monitoring System Performance
- o Excess Wet Opacity Report
- o Excess Dry Opacity Report
- o Opacity Downtime Report
- o SO2 Excess Emission and Monitoring System Performance
- o SO2 Excess Emission Report 1.0 lb/mmBTU
- o SO2 Excess Emission Report 0.1 lb/mmBTU
- o SO2 Downtime Report
- o CO2 Downtime Report
- o NOx Excess Emission Report
- o NOx Downtime Report
- o CO Excess Emission Report- 30-Day
- o CO Excess Emission Report- 12-Month
- o CO Downtime Report

40 CFR 52.145.d.5.iii Daily Electric Energy Report Gigawatt Hours

Source: Unit 2 Channel: 2 GW365

Report for 01/01/2018 thru 03/31/2018

Date	Gigawatts	Date	Gigawatts	Date	Gigawatts
01/01/18		02/01/18	15.71	03/01/18	12.08
01/02/18	11.30	02/02/18	14.64	03/02/18	12.60
01/03/18	17.70	02/03/18	12.44	03/03/18	12.00
01/04/18	17.42	02/04/18	11.70	03/04/18	13.30
01/05/18	17.01	02/05/18	12.50	03/05/18	16.98
01/06/18	15.82	02/06/18	12.27	03/06/18	16.40
01/07/18	15.45	02/07/18	12.84	03/07/18	18.24
01/08/18	16.19	02/08/18	13.50	03/08/18	-
01/09/18	15.86	02/09/18	14.67	03/09/18	
01/10/18	14.27	02/10/18	14.58	03/10/18	13.54
01/11/18	13.58	02/11/18	15.00	03/11/18	12.66
01/12/18	14.66	02/12/18	13.67	03/12/18	13.93
01/13/18	15.78	02/13/18	15.15	03/13/18	14.24
01/14/18	15.96	02/14/18	16.02	03/14/18	14.88
01/15/18	16.09	02/15/18	15.45	03/15/18	12.38
01/16/18	17.95	02/16/18	17.12	03/16/18	14.09
01/17/18	16.87	02/17/18	15.59	03/17/18	13.98
01/18/18	17.51	02/18/18	13.18	03/18/18	13.51
01/19/18	15.10	02/19/18	15.18	03/19/18	14.07
01/20/18	16.17	02/20/18	16.32	03/20/18	13.83
01/21/18	16.38	02/21/18	18.20	03/21/18	13.99
01/22/18		02/22/18	17.63	03/22/18	13.77
01/23/18	17.22	02/23/18	17.26	03/23/18	14.33
01/24/18	17.99	02/24/18	16.80	03/24/18	13.15
01/25/18	16.52	02/25/18	16.21	03/25/18	
01/26/18	15.70	02/26/18	15.02	03/26/18	
01/27/18	15.07	02/27/18	15.34	03/27/18	
01/28/18	14.84	02/28/18	12.36	03/28/18	
01/29/18	17.85			03/29/18	
01/30/18	17.34			03/30/18	
01/31/18	15.61			03/31/18	

Invalid Boiler Operating Day

40 CFR Part 60 CEM Quarterly Report Excess Emission and Monitoring System Performance

Reporting dates 01/01/2018 00:00 through 03/31/2018 23:59

Pollutant: Opacity / "2 Opacity"

Emission Limit: 40

Company Name: SRP - Navajo, Unit 2

Address: Navajo Generating Station Page, AZ 86040

Unit Description: coal-fired cyclonic boiler power plant

Total source operating time in reporting period: 1988.5 hours

Emission Data Summary(note 1)		CEMS Downtime Summary(note 1)			
1. Duration of excess emissions in period due	to:	1. Duration of CEMS downtime in period due to:			
a. Start Up/Shut Down	0.0	a. Monitoring Equipment Malfunction	0.0		
b. Control Equipment Failure	0.0	b. Non-Monitoring Equipment Malfunction	0.0		
c. Process Problems	0.0	c. Quality Assurance	1.0		
d. Exempt (Wet Stack - Scrubber Operation)	1988.5	d. Other Known Monitor Downtime Cause	34.7		
e. UnKnown Excess Emissions Cause	0.0	e. UnKnown Monitor Downtime Cause	0.0		
2. Total duration of excess emission	0.0	2. Total duration of CEMS downtime	35.7		
3. Excess emission duration (%)	0.00%	3. CEMS downtime (%)	1.80%		

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

Name: Walter H. Begay

Signature:

Title: Air Quality Environmental Engineer

Date: 4 (1)

Navajo Unit 2 Excess Wet Opacity Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040 Start: 01/01/2018 00:00 End: 03/31/2018 23:59

POLLUTANT: 2 Opacity SOURCE: Unit 2 EPISODE: Opacity Over Limit

Incident	Incident	Length			
Start	End	Hours	Reason	Acti	on
01/01/18 17:45 - 0	3/08/18 13:58	1580.2	Wet Scrubber	Operation	Exempt
03/09/18 10:14 - 0	3/25/18 16:19	390.1	Wet Scrubber	Operation	Exempt
03/31/18 05:45 - 0	3/31/18 23:59	18.2	Wet Scrubber	Operation	Exempt

Total Duration: 1988.5 Hours

Navajo Unit 2 Excess Dry Opacity Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Incident

POLLUTANT: 1 Opacity SOURCE: Unit 2 EPISODE: Opacity Over Limit

Start

Incident End

Length Hours

Reason

No Excess Emissions

Total Duration 0.0 Hours

Navajo Unit 2 Opacity Downtime Report

Start: 01/01/2018 00:00

End: 03/31/2018 23:59

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040

POLLUTANT: 2 Opacity SOURCE: Unit 2 EPISODE: Opacity Analyzer Downtime

Incident	Incident	Length	
Start	End	Mins.	Reason
01/16/18 09:58 -	01/16/18 09:53	06 Monitor	Maintenance Activities
01/30/18 10:24 -	01/30/18 10:29	06 Monitor	Maintenance Activities
02/04/18 08:06 -	02/04/18 08:17	12 Monitor	Maintenance Activities
02/16/18 18:18 -	02/16/18 19:47	90 Non-Mon	itor Maintenance Activities
02/16/18 19:54 -	02/16/18 02:23	390 Non-Mon	itor Maintenance Activities
02/17/18 02:30 -	02/17/18 02:59	30 Non-Mon	itor Maintenance Activities
02/17/18 03:06 -	02/17/18 03:35	30 Non-Mon	itor Maintenance Activities
02/17/18 03:42 -	02/17/18 03:53	12 Non-Mon	itor Maintenance Activities
02/17/18 04:00 -	02/17/18 04:29	30 Non-Mon	itor Maintenance Activities
02/17/18 04:36 -	02/17/18 04:59	24 Non-Mon	itor Maintenance Activities
02/17/18 05:06 -	02/17/18 05:29	24 Non-Mon	itor Maintenance Activities
02/17/18 05:42 -	02/17/18 10:53	312 Non-Mon	itor Maintenance Activities
02/17/18 11:00 -	02/18/18 05:29	1110 Non-Mon	itor Maintenance Activities
02/20/18 10:24 -	02/20/18 10:29	06 Monitor	Maintenance Activities
03/20/18 14:24 -	03/20/18 15:23	60 Quality	Assurance Activities

TOTAL DURATION = 35.7 Hours

40 CFR Part 60 CEM Quarterly Report Excess Emission and Monitoring System Performance

Reporting dates 01/01/2018 00:00 through 03/31/2018 23:59

Pollutant: SO2 lb/MMBtu (365 Boiler Operating Day rolling average) Emission Limit: 0.1

Company Name: SRP - Navajo, Unit 2

Address: Navajo Generating Station Page, AZ 86040

Unit Description: coal-fired cyclonic boiler power plant

Total source operating time in reporting period: 1964.9 hours

Emission Data Summary(note 1)		CEMS Downtime Summary(note 1)				
1. Duration of excess emissions in period due	to:	1. Duration of CEMS downtime in period due to:				
a. Start Up/Shut Down	0.0	a. Monitoring Equipment Malfunction	0.0			
b. Control Equipment Failure	0.0	b. Non-Monitoring Equipment Malfunction	0.0			
c. Process Problems	0.0	c. Quality Assurance	7.0			
d. Exempt (Wet Stack - Scrubber Operation)	0.0	d. Other Known Monitor Downtime Cause	0.0			
e. UnKnown Excess Emissions Cause	0.0	e. UnKnown Monitor Downtime Cause	5.0			
2. Total duration of excess emission	0.0	2. Total duration of CEMS downtime	12.0			
3. Excess emission duration (%)	0.00%	3. CEMS downtime (%)	0.61%			

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

Name:	Walter H. Begay
Signatu	re: Valtory
Title:	Air Quality Environmental Engineer
Date:	4/26/18

Navajo Unit 2 SO2 Excess Emission Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040 Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Emission Limit: 1.0 lb/MMBtu, 3 hr. plant wide average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 2 SO2 Excess Emission Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040 Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Emission Limit: 0.1 lb/MMBtu, 365 BOD rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 2 SO2 Downtime Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040 Start: 01/01/2018 00:00 End: 03/31/2018 23:59

POLLUTANT: 2 SO2 ppm SOURCE: Unit 2 EPISODE: SO2 Analyzer Downtime

Incident Start	Incident End	Length Hrs.	Reason
02/22/18 10:00	- 02/22/18 10:59	1	Quality Assurance Activity
02/22/18 13:00	- 02/22/18 14:59	2	Quality Assurance Activity
03/12/18 13:00	- 03/12/18 13:59	1	Quality Assurance Activity
03/12/18 16:00	- 03/12/18 16:59	1	Quality Assurance Activity
03/13/18 07:00	- 03/13/18 07:59	1	Quality Assurance Activity
03/31/18 05:00	- 03/31/18 05:59	1	Quality Assurance Activity
03/31/18 16:00	- 03/31/18 20:59	5	Unknown Monitor Downtime Cause

Navajo Unit 2 CO2 Downtime Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040 Start: 01/01/2018 00:00 End: 03/31/2018 23:59

POLLUTANT: 2 CO2 cor SOURCE: Unit 2 EPISODE: CO2 Analyzer Downtime

Incident Start			Inci En	.dent nd	Length Hrs.	Rea	son	
02/22/18	10:00	-	02/22/18	10:59	1	Quality	Assurance	Activity
02/22/18	13:00	**	02/22/18	14:59	2	Quality	Assurance	Activity
03/12/18	13:00	-	03/12/18	13:59	1	Quality	Assurance	Activity
03/12/18	16:00	**	03/12/18	16:59	1	Quality	Assurance	Activity
03/13/18	07:00	-	03/13/18	07:59	1	Quality	Assurance	Activity
03/31/18	05:00	-	03/31/18	05:59	1	Quality	Assurance	Activity
03/31/18	16:00	-	03/31/18	20:59	5	Unknown	Monitor D	owntime Cause

Navajo Unit 2 NOx Excess Emission Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00

End: 03/31/2018 23:59

Emission Limit: 0.24 lb/MMBtu, 30 Day rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 2 NOx Downtime Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040 Start: 01/01/2018 00:00 End: 03/31/2018 23:59

POLLUTANT: 2 NO:	x cor	SOURCE:	Unit 2	EPISODE:	NOx	Analyzer	Downtime
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Incident	Incident	Length	
Start	End	Hrs.	Reason
01/28/18 05:00	- 01/28/18 08:59	4	Quality Assurance Activities
02/10/18 05:00	- 02/10/18 07:59	3	NOx Analyzer Problem
02/13/18 05:00	- 02/13/18 07:59	3	NOx Analyzer Calibration Failure
02/15/18 05:00	- 02/15/18 07:59	3	NOx Analyzer Problem
02/19/18 05:00	- 02/19/18 06:59	2	NOx Analyzer Problem
02/22/18 10:00	- 02/22/18 10:59	1	Quality Assurance Activities
02/22/18 13:00	- 02/22/18 14:59	2	Quality Assurance Activities
03/09/18 21:00	- 03/10/18 08:59	12	Monitor Equipment Malfunction
03/11/18 06:00	- 03/11/18 06:59	1	NOx Analyzer Problem
03/12/18 13:00	- 03/12/18 13:59	1	Quality Assurance Activities
03/12/18 16:00	- 03/12/18 16:59	1	Quality Assurance Activities
03/13/18 07:00	- 03/13/18 07:59	1	Quality Assurance Activities
03/31/18 05:00	- 03/31/18 05:59	1	NOx Analyzer Problem
03/31/18 16:00	- 03/31/18 20:59	5	Unknown Monitor Downtime Cause

Navajo Unit 2 CO Excess Emission Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00

End: 03/31/2018 23:59

Emission Limit: 0.23 lb/MMBtu, 30 Day rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 2 CO Excess Emission Report

SRP - Navajo, Unit 2 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Emission Limit: 0.15 lb/MMBtu, 12-Month rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 2 CO Downtime Report

SRP - Navajo, Unit 2 Navajo Generating Station Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Page, AZ 86040

POLLUTANT: 2 CO cor SOURCE: Unit 2 EPISODE: CO Analyzer Downtime

Incident Start

Incident End

Length Hrs.

Reason

None

UNIT 3 REPORT SUMMARY

- o Daily Electric Energy Report
- o Opacity Excess Emission and Monitoring System Performance
- o Excess Wet Opacity Report
- o Excess Dry Opacity Report
- o Opacity Downtime Report
- o SO2 Excess Emission and Monitoring System Performance
- o SO2 Excess Emission Report 1.0 lb/mmBTU
- o SO2 Excess Emission Report 0.1 lb/mmBTU
- o SO2 Downtime Report
- o CO2 Downtime Report
- NOx Excess Emission Report
- NOx Downtime Report
- o CO Excess Emission Report- 30-Day
- o CO Excess Emission Report- 12-Month
- o CO Downtime Report

40 CFR 52.145.d.5.iii Daily Electric Energy Report Gigawatt Hours

Source: Unit 3 Channel: 3 GW365

Report for 01/01/2018 thru 03/31/2018

Date	Gigawatts	Date	Gigawatts	Date	Gigawatts
01/01/18	17.21	02/01/18	15.69	03/01/18	14.80
01/02/18	17.16	02/02/18	14.72	03/02/18	14.46
01/01/18	17.86	02/03/18	12.45	03/03/18	13.66
01/04/18	16.55	02/04/18	12.48	03/04/18	13.87
01/05/18	17.44	02/05/18	12.93	03/05/18	16.51
01/06/18	16.51	02/06/18	12.43	03/06/18	16.48
01/07/18	15.44	02/07/18	13.07	03/07/18	17.81
01/08/18	16.43	02/08/18	13.17	03/08/18	16.20
01/09/18	15.48	02/09/18	13.61	03/09/18	17.32
01/10/18	13.60	02/10/18	14.14	03/10/18	13.15
01/11/18	13.92	02/11/18	14.25	03/11/18	11.62
01/12/18	14.83	02/12/18	12.32	03/12/18	13.19
01/13/18	16.29	02/13/18	13.64	03/13/18	14.18
01/14/18	15.98	02/14/18	15.63	03/14/18	14.81
01/15/18		02/15/18	15.92	03/15/18	12.03
01/16/18		02/16/18	17.66	03/16/18	12.28
01/17/18		02/17/18	15.75	03/17/18	12.02
01/18/18		02/18/18	13.24	03/18/18	12.48
01/19/18	15.32	02/19/18	14.51	03/19/18	12.18
01/20/18		02/20/18	15.40	03/20/18	11.88
01/21/18	16.65	02/21/18	17.34	03/21/18	11.88
01/22/18	17.73	02/22/18	17.54	03/22/18	12.04
01/23/18		02/23/18	16.98	03/23/18	12.69
01/24/18		02/24/18	16.77	03/24/18	10.73
01/25/18	15.29	02/25/18	16.25	03/25/18	12.99
01/26/18	15.58	02/26/18	14.96	03/26/18	13.29
01/27/18	15.65	02/27/18	15.20	03/27/18	
01/28/18	14.53	02/28/18	15.14	03/28/18	
01/29/18	17.84			03/29/18	,
01/30/18	17.07			03/30/18	
01/31/18	15.58			03/31/18	

Invalid Boiler Operating Day

40 CFR Part 60 CEM Quarterly Report Excess Emission and Monitoring System Performance

Reporting dates 01/01/2018 00:00 through 03/31/2018 23:59

Pollutant: Opacity / "3 Opacity"

Emission Limit: 40

Company Name: SRP - Navajo, Unit 3

Address: Navajo Generating Station Page, AZ 86040

Unit Description: coal-fired cyclonic boiler power plant

Total source operating time in reporting period: 2064.3 hours

Emission Data Summary(note 1)			
:0:	1. Duration of CEMS downtime in period due to:		
0.0	a. Monitoring Equipment Malfunction	0.0	
0.0	b. Non-Monitoring Equipment Malfunction	0.0	
0.0	c. Quality Assurance	0.9	
2064.3	d. Other Known Monitor Downtime Cause	0.8	
0.0	e. UnKnown Monitor Downtime Cause	0.0	
0.0	2. Total duration of CEMS downtime	1.7	
0.0%	3. CEMS downtime (%)	0.08%	
	0.0 0.0 0.0 2064.3 0.0	0.0 a. Monitoring Equipment Malfunction 0.0 b. Non-Monitoring Equipment Malfunction 0.0 c. Quality Assurance	

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

*Please see cover letter and attached "Written Notification Report for Excess Emissions and Control System Outage" for explanation of potential excess emissions.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

Name: Walter H. Begay

Signature.

Title: Air Quality Environmental Engineer

nate.

Navajo Unit 3 Excess Wet Opacity Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040 Start: 01/01/2018 00:00 End: 03/31/2018 23:59

POLLUTANT: 3 Opacity SOURCE: Unit 3 EPISODE: Opacity Over Limit

Incident	Incident	Length			
Start	End	Hours	Reason	Action	n
01/01/18 00:00 -	01/16/18 04:26	364.9	Wet Scrubber	Operation 1	Exempt
01/17/18 22:55 -	03/29/18 18:45	1705.2	Wet Scrubber	Operation !	Exempt
03/31/18 23:59 -	03/31/18 23:59	0.0	Wet Scrubber	Operation 1	Exempt

Total Duration: 2064.3 Hours

Navajo Unit 3 Excess Dry Opacity Report

SRP - Navajo, Unit 3 Navajo Generating Station

Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Page, AZ 86040

POLLUTANT: 1 Opacity SOURCE: Unit 3 EPISODE: Opacity Over Limit

Incident Start

Incident End

Length Hours

Reason

No Excess Emissions

Total Duration 0.0 Hours

Navajo Unit 3 Opacity Downtime Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040 Start: 01/01/2018 00:00 End: 03/31/2018 23:59

POLLUTANT: 3 Opacity SOURCE: Unit 3 EPISODE: Opacity Analyzer Downtime

Incident	Incident	Length	
Start	End	Mins.	Reason
1/15/18 09:42	01/15/18 09:53	12 Monitor	Maintenance Activities
01/30/18 09:54	01/30/18 09:59	06 Monitor	Maintenance Activities
02/20/18 09:54	02/20/18 09:59	06 Monitor	Maintenance Activities
03/01/18 15:48	03/01/18 15:53	06 Monitor	Maintenance Activities
03/08/18 15:18	03/08/18 15:23	06 Monitor	Maintenance Activities
3/19/18 10:36	03/19/18 10:41	06 Monitor	Maintenance Activities
03/20/18 16:00	03/20/18 16:53	54 Quality	Assurance Activities
03/28/18 10:24	03/28/18 10:29	06 Monitor	Maintenance Activities

TOTAL DURATION = 1.7 Hours

40 CFR Part 60 CEM Quarterly Report Excess Emission and Monitoring System Performance

Reporting dates 01/01/2018 00:00 through 03/31/2018 23:59

Pollutant: SO2 lb/MMBtu (365 Boiler Operating Day rolling average)

Emission Limit: 0.1

Company Name: SRP - Navajo, Unit 3

Address: Navajo Generating Station Page, AZ 86040

Unit Description: coal-fired cyclonic boiler power plant

Total source operating time in reporting period: 2035.7 hours

	CEMS Downtime Summary(note 1) 1. Duration of CEMS downtime in period due to:		
to:			
0.0	a. Monitoring Equipment Malfunction	0.0	
0.0	b. Non-Monitoring Equipment Malfunction	0.0	
0.0	c. Quality Assurance	1.0	
0.0	d. Other Known Monitor Downtime Cause	0.0	
0.0	e. UnKnown Monitor Downtime Cause	0.0	
0.0	2. Total duration of CEMS downtime	1.0	
0.00%	3. CEMS downtime (%)	0.05%	
	0.0 0.0 0.0 0.0 0.0	a. Monitoring Equipment Malfunction b. Non-Monitoring Equipment Malfunction c. Quality Assurance d. Other Known Monitor Downtime Cause e. UnKnown Monitor Downtime Cause 7.00 Total duration of CEMS downtime	

Total source operating time in reporting period: = Time in the Report Period minus the Process Down Episode Time.

I have personally examined and am familiar with the information submitted in this document and all attachments and certify (based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information) that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement(s) made in this document or its attachments may be punishable as a criminal offense."

Title: Air Quality Environmental Engineer

Navajo Unit 3 SO2 Excess Emission Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Emission Limit: 1.0 lb/MMBtu, 3 hr. plant wide average

Date and Time Period Magnitude

Reason

No Excess Emission

Navajo Unit 3 SO2 Excess Emission Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Emission Limit: 0.1 lb/MMBtu, 365 BOD rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 3 SO2 Downtime Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040 Start: 01/01/2018 00:00 End: 03/31/2018 23:59

POLLUTANT: 3 SO2 ppm SOURCE: Unit 3 EPISODE: SO2 Analyzer Downtime

 Incident
 Incident
 Length

 Start
 End
 Hrs.
 Reason

 03/21/18 10:00 - 03/21/18 10:59
 1
 Quality Assurance Activities

Navajo Unit 3 CO2 Downtime Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00

End: 03/31/2018 23:59

POLLUTANT: 3 CO2 cor SOURCE: Unit 3 EPISODE: CO2 Analyzer Downtime

Incident

Incident

End

Length Hrs.

Reason

Start 03/21/18 10:00 - 03/21/18 10:59

Quality Assurance Activities

Navajo Unit 3 NOx Excess Emission Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Emission Limit: 0.24 lb/MMBtu, 30 Day rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 3 NOx Downtime Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00 End: 03/31/2018 23:59

POLLUTANT: 3 NOx cor SOURCE: Unit 3 EPISODE: NOx Analyzer Downtime

 Incident
 Incident
 Length

 Start
 End
 Hrs.
 Reason

 03/21/18 10:00 - 03/21/18 10:59
 1
 Quality Assurance Activities

Navajo Unit 3 CO Excess Emission Report

SRP - Navajo, Unit 3 Navajo Generating Station Page, AZ 86040

Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Emission Limit: 0.23 lb/MMBtu, 30 Day rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 3 CO Excess Emission Report

SRP - Navajo, Unit 3 Navajo Generating Station Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Page, AZ 86040

Emission Limit: 0.15 lb/MMBtu, 12-Month rolling average

Date and Time Period

Magnitude

Reason

No Excess Emission

Navajo Unit 3 CO2 Downtime Report

SRP - Navajo, Unit 3 Navajo Generating Station Start: 01/01/2018 00:00 End: 03/31/2018 23:59

Page, AZ 86040

POLLUTANT: 3 CO2 cor SOURCE: Unit 3 EPISODE: CO2 Analyzer Downtime

Incident Incident Length Start End Hrs. Reason 03/21/18 10:00 - 03/21/18 10:59 Quality Assurance Activities